

REMARKS

Applicants and Applicants' attorney express appreciation to the Examiner for the courtesies extended during the recent interview held on January 8, 2007. Reconsideration and allowance for the above-identified application are now respectfully requested. Claims 1 and 5-28 remain pending in the application, wherein no claims were amended, added or cancelled.

The claims were variously rejected over U.S. Patent Nos. 6,348,524, 6,787,613 and 6,962,950 all to Bastioli et al. As discussed and essentially agreed to during the Examiner Interview, Bastioli '524 and Bastioli '950 neither teach nor suggest a biodegradable polymer composition that include a soft synthetic thermoplastic biodegradable aliphatic-aromatic copolyester and a stiff thermoplastic biodegradable polymer as recited in the claims, and "wherein the biodegradable composition is free of thermoplastic starch that is initially melted using high boiling liquid plasticizers". Bastioli '613, on the other hand, is not prior art to the claimed invention, which was invented prior to the filing date of the U.S. application that issued as Bastioli '613.

As set forth in the Office Action, which incorporates the rejection of the previous office action, the only example of Bastioli '524 that is relevant to the claims of the present application is Example 5, which discloses a blend of Ecoflex and thermoplastic starch that is initially melted using glycerin.¹ This conclusion inherently follows from the fact that native starch granules (*i.e.*, "Globe 03401-Cerestar natural starch") were supplied to a two screw ONC extruder together with glycerin and other components. Col. 7, lines 31-44. Prior to melting the "natural starch" using glycerin, the natural (or "native") starch granules are not thermoplastic and cannot satisfy the "stiff thermoplastic biodegradable polymer" limitation of claims 23 and 25. Conversion of the natural starch into a thermoplastic material is effected using glycerin, thus violating the limitation of claims 23 and 25 that the claimed biodegradable compositions are "free of thermoplastic starch that is initially melted using high boiling liquid plasticizers".

Elsewhere, Bastioli '524 teaches that glycerin is a "starch plasticizer" and used for "destructurization" of native starch granules. Col. 2, lines 29-31, 50-55; col. 3, lines 44-47. The starch plasticizer is a "critical" component of the thermoplastic starch blends according to Bastioli '524, as it is included within a "critical quantity" or "critical range". Col. 2, lines 56-60; col. 3, lines 58-60.

¹ Although the remaining examples do not disclose the use of an aliphatic-aromatic copolyester, they all include glycerin in addition to native starch.

A similar analysis applies to Bastioli '950. As set forth in the Office Action, the only example of Bastioli '950 that is directly relevant to the claims of the present application is Example 18, which discloses a blend of Ecoflex (a soft biodegradable polymer), lactic/glycolic acid copolymer (allegedly a stiff biodegradable polymer) and "maize starch" that is initially melted using glycerin.² Because glycerin is added to the manufacturing apparatus along with the starch, one of skill in the art would understand Example 18 of Bastioli '950 as teaching the formation of thermoplastic starch that is melted using glycerin.

As further evidence that the Bastioli '524 and '950 patents neither teach nor suggest the biodegradable compositions recited in independent claims 1, 20, 23 and 25, Applicants refer to the Declaration of Harald Schmidt, more particularly to paragraphs 4-11 of the Schmidt Declaration. After providing general background information, including showing that Harald Schmidt is qualified to interpret the meaning of the Bastioli '524 and '950 patents, the Schmidt Declaration analyzes the relevant portions of these patents and states that "the examples in the Bastioli '524 and '950 patents all teach placing native starch granules and other components, including glycerin, into an extruder and forming a thermoplastic melt, which one of ordinary skill in the art would readily understand as disclosing a thermoplastic or destructurized starch that is melted using glycerin as a plasticizer for the native starch granules." Schmidt Declaration, ¶ 10. The Schmidt Declaration thereafter concludes "that the Bastioli '524 and '950 patents do not disclose biodegradable compositions that are 'free of thermoplastic starch that is initially melted using high boiling liquid plasticizers.'"

In view of the foregoing, Applicants submit that the claims as previously presented are patentable over the Bastioli '524 and '950 patents.

Applicants also submit that Bastioli '613 is not prior art under 35 U.S.C. § 102(e) because the filing date of Bastioli '613 is not prior to the claimed invention. As set forth in the Schmidt Declaration, the claimed invention was invented prior to January 25, 2002, as corroborated by Exhibits A-F to the Schmidt Declaration. Schmidt Declaration, ¶¶ 12-27. As a result, Bastioli '613 may not be used in rejecting the claims of the present application.

Finally, a Terminal Disclaimer is being submitted herewith in order to remove a potential non-statutory double patenting rejection that may exist relative to U.S. Application No. 11/103,999.

² Although the remaining examples do not disclose a stiff synthetic thermoplastic biodegradable polymer, they all include glycerin in addition to starch.

In view of the foregoing, Applicants submit that the application is in allowable form. In the event the Examiner finds any remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview or which may be overcome by examiner amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 19th day of January 2007.

Respectfully submitted,



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